

810.1 MASONRY MORTAR SAND

A. General: Aggregate for use in masonry mortar shall consist of natural sand or manufactured sand. Manufactured sand is the product obtained by crushing stone, gravel, or air cooled iron blast furnace slag specially processed to assure suitable particle shape as well as gradation.

B. Gradation:

Sieve Size	Percent Passing	
	Natural Sand	Manufactured Sand
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 to 100	95 to 100
No. 16 (1.18 mm)	70 to 100	70 to 100
No. 30 (600 μm)	40 to 75	40 to 75
No. 50 (300 μm)	10 to 35	20 to 40
No. 100 (150 μm)	2 to 15	10 to 25
No. 200 (75 μm)	- - -	0 to 25

Not more than 50 percent may be retained between any two consecutive sieves listed.

Not more than 25 percent may be retained between the No. 50 (300 μm) and No. 100 (150 μm) sieves.

C. Deleterious Substances: The amount of deleterious substances shall not exceed the following limits by dry weight:

1. Clay lumps and friable particles 1.0%
2. Lightweight particles having a
specific gravity of less than 1.95 0.5%

D. Soundness: When the fine aggregate is subjected to five cycles of the sodium sulfate soundness test, the weighted loss shall not exceed ten percent by weight.

A satisfactory soundness record for deposits from which material has been used for five years or more, may be considered as a substitute for performing the sodium sulfate soundness test.

E. Organic Impurities: The aggregate shall be free of injurious amounts of organic impurities. Except as herein provided, aggregates subjected to the test for organic impurities and producing a color darker than the standard shall be rejected.

Aggregate failing in the test may be used provided that the principally due to the presence of small quantities of coal lignite, or similar discrete particles.

Aggregate failing the colorimetric test may be used provided that, when tested for the effect of organic impurities on strength of mortar, the relative strength at 7 and 28 days (when calculated in

accordance with Section 10 of AASHTO T 71, the Organic Impurities in Fine Aggregate on Strength of Mortar), is not less than 95 percent.

810.2 EPOXY RESIN MORTAR SAND

A. **General:** The aggregate shall be silica sand.

B. **Gradation:**

<u>Sieve Size</u>	<u>Percent Passing</u>
No. 8 (2.36 mm)	100
No. 50 (300 µm)	15 to 40
No. 100 (150 µm)	0 to 10
No. 200 (75 µm)	0 to 0.5